

Staff Findings

- Most bird species killed by interactions with wind turbines are protected by state and federal laws
- As wind energy expands the rotor swept area increases and more birds will be at risk for collision
- Additional wind development to meet the RPS goals is feasible while at the same time limiting avian impacts
- To lower risks to birds developers should conduct protocol level bird use surveys prior to development
- Using the survey results, turbines can be located to avoid areas of high avian use



Staff Findings Continued

- Statewide impacts on bats need to be determined, and mitigation developed to reduce collisions
- The existing siting and survey guidelines are voluntary and the level of implementation varies
- Statewide guidelines could remove a significant barrier to increasing wind development in the state and gain consistency statewide when developing and mitigating projects
- The Altamont Pass has been (well) studied over the last 20 years and bird use and mortality documented
- San Geronio Pass, Tehachapi Pass and Pacheco Pass have been studied much less
 - Studies that have been completed report lower fatality rates
 - Once confirmed it may be appropriate to encourage repowering and expansion in these areas



Staff Findings Continued

- Mitigation measures were developed as part of PIER –EA research
- As the next step mitigation should be implemented and monitored Altamont wide to determine their effectiveness
- Two measures, seasonal shutdown and removal of high risk turbines would reduce bird kills; it would also result in a loss of generation
- Ultimately, implementing mitigation could allow industry to expand



Staff Findings Continued

- Past research has shown that bird use is higher in Solano County than the Altamont Pass for several raptor species
- Recent post-construction surveys for the High Winds Project indicate high bird and bat mortality
- Research aimed at identifying the extent of the problem and developing mitigation measures would allow for the continued use of wind resources in Solano County while minimizing the potential for another wind resource area in California with higher impacts



Staff Policy Options

- The Energy Commission could promote development of new wind resources only in areas that have low risks to birds
- To determine statewide impacts on bats, the Energy Commission could support bat use, behavior and carcass surveys at all of the wind farms in California
- The Energy Commission could support statewide guidelines requiring the wind industry to mitigate their impacts on birds in the state



Staff Policy Options Continued

- In the Altamont Pass Wind Resource Area the Energy Commission could encourage industry to apply mitigation measures to existing projects, new projects and repowering projects to reduce bird deaths
- In the Solano County Wind Resource Area the Energy Commission could encourage industry to lower its existing impact on bird and bat resources
- The Energy Commission could support further research using more current research protocols in the Tehachapi Pass, San Geronio Pass, and Pacheco Pass to confirm low avian and bat impacts in these areas

